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PATENT APPLICATION

TECH CENTER 1600/2900

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re U.S. Patent Application

Serial No. 09/674,062, filed on March 1, 2001, in the name of Zhongming ZENG
For: A PHARMACEUTICAL COMPOSITION FOR REDUCING VAGINAL
ACIDITY AND TREATMENT OF VAGINITIS, AND THE USE THEREOF

DECLARATION OF Dr. ZHONGMING ZENG

I, Zhongming ZENG, Then, hereby declare that:

- I am a Chinese citizen
- I received a Diploma of Medicine from the West China University of Medical Sciences, Chengdu, China, in 1985
- I received a Ph.D. of Medicine from the West China University of Medical Sciences, Chengdu, China, in 1992
- I had been employed by Nanshan People's Hospital, Shenzhen, China from 1992 to 1998
- I have been the deputy director of Department of Health, Nanshan District, Shenzhen, China since 1998
- I am the inventor and the co-applicant of US patent application 09/674,062
- I did the clinical study of US patent application 09/674,062 and I am familiar with the contents thereof.

PURPOSE

The purpose of this declaration is to demonstrate the effect of the administration of the composition of this invention comprising eight amino acids in treating high acidity vaginitis.

METHODOLOGY AND RESULTS

Detailed experiment record of Experiment Example (Case Report) of 09/674,062

Female, 30 years old, had been suffering from vaginal pruritus for about 5 months. She had been repeatedly diagnosed as Candidal vaginitis and treated with oral or topical anti-fungi drugs, which included Ketoconazole and Nystatin. Her vaginal pruritus was usually relieved by the treatment but would often relapse in the next menstrual circle. The inventor of the present application carefully checked her Gram-stained vaginal smear with microscope and tested the vaginal pH value. The vaginal pH value was 3.8 but no Candidal spore or filament was found. Thus the illness was diagnosed as "high acidity vaginitis", i.e. **the vaginitis with abnormally high vaginal acidity**. Vaginal douche was performed twice daily with 1.25% sodium bicarbonate solution, for 3 days. Despite of the high pH value (greater than 8.0) of the sodium bicarbonate solution, the test of vaginal pH value on the forth morning showed it was between 3.8 and 4.0. Then 3 ml of the composition of this invention containing glutamic acid, aspartic acid, isoleucine, phenylalanine, valine, leucine, proline and threonine (1.5 mmol of each of these eight amino acids and 1.6 gram of Xanthan gum in 100ml distilled water, with the pH value being adjusted to 7.0) was administered twice a day for three days. The symptoms were quickly disappeared. The pH value was tested again and it increased to 4.2 on the forth morning. Again, there was no fungal spore or fungal filament on the Gram-stained smear. Then the medication was continued for 3 more days and the vaginal pH value went to 4.4.

DISCUSSION

In fact, the inventor of the present application did many clinical experiments with different combinations of amino acids. It was because of lacking experiences with patent application that the inventor did not include all of the experiments in the patent application document.

However, in the specification, the inventor did point out "According to the invention, the amino acids in the said composition are **formulations or combinations of many amino acids**... However, the pharmaceutical composition of the invention may also contain minor kinds of amino acids and/or salts of amino acids, **especially the amino acids and/or salts of amino acids selected from the group defined as follows: glutamic acid, aspartic acid, isoleucine, phenylalanine, valine, leucine, proline, threonine**. The

composition containing only one or two sodium salts of amino acids can also partly realize the object of the invention." There are also many composition examples that show these eight amino acids are preferred by their much higher dosages in the compositions.

In the above case, the vaginal acidity was not changed significantly by vaginal douche with 1.25% sodium bicarbonate solution. However, the vaginal acidity decreased after being treated with a composition containing the eight essential amino acids, although the pH value of the later was lower than that of the former. It showed that amino acids are effective in decreasing the vaginal acidity by reducing the acid production of vaginal microbes.

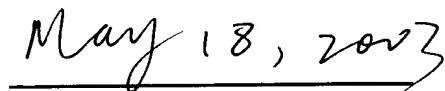
CONCLUSIONS

From the information above, it is proved that, the administration of the composition of invention comprising eight amino acids can decrease the vaginal acidity.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



Zhongming ZENG



Date: May 18, 2003